

Attorney Docket No. 211843/00022

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (Currently amended): An ion source comprising:

an ionization chamber, said ionization chamber including a vapor entrance aperture for receiving gaseous feed material, an extraction aperture for emitting an ionized beam and one or more electron entrance apertures ~~beams~~, each of said one or more electron beams entrance apertures being ~~generally parallel to the~~ disposed in a plane of said extraction aperture;

one or more electron beam sources for generating one or more electron beams, each of said one or more electron beam sources disposed to generate one or more electron beams in a direction generally ~~perpendicular~~ parallel to the plane of its respective electron entrance aperture ~~said extraction aperture~~; and

one or more beam steerers for bending said one or more electron beams so that said one or more electron beams travel in a direction ~~generally parallel to the plane of said extraction aperture and are received~~ to be received in said one or more electron entrance apertures.

2. (Original): The ion source as recited in claim 1, wherein each of said beam steerers includes a magnetic field source configured to generate a magnetic field in a direction generally perpendicular to said electron beam.

3. (Original): The ion source as recited in claim 2, wherein at least one of said one or more electron beam sources is a filament.

Claims 4-9 (Cancelled).

10. (Original): The ion source as recited in claim 1, wherein at least one of said one or more magnetic field sources includes a permanent magnet.